# DDF4910HDV

IP Network Dome Camera, Vandal-resistant, 5-Megapixel, Full High-Definition, 1080p/30, PoE

The **DDF4910HDV** is a **5-megapixel High-Definition** IP network dome camera with **Dallmeier Cam_inPIX®** technology built into a vandal-resistant enclosure. The camera provides **real-time Full HD video (1080p/30)** using the **H.264** codec that is currently the most sophisticated standard for high-efficiency video compression.

Besides a comprehensive set of automatic and manual image optimization functions, the camera features many other setting options, especially useful for demanding surveillance applications.

According to requirements, the camera can be supplied conventionally with 12 V DC or conveniently operated via **Power over Ethernet** (PoE Class 0, IEEE 802.3af) which allows for an easy, quick and cost-effective installation.

## Features

- 1/2.5" 5-megapixel CMOS image sensor with Cam_inPIX® technology
- Pure Digital Signal Processing
- Real-time Full HD video (1080p/30)
- High light sensitivity of 0.59 lux (at F0.95, 50 IRE)
- Resolution: SD (up to D1), HD (720p, 1080p, 2MP, 3MP, 5MP)
- Video compression: H.264, MJPEG
- Frame rate up to 30 fps
- Simultaneous Dual- or Tri-Streaming
- Automatic White Balance (AWB)
- Automatic Gain Control (AGC)
- Automatic Electronic Shutter (AES)
- Comprehensive set of image optimization functions like brightness, contrast, saturation and sharpness
- 3D Digital Noise Reduction (3D DNR)
- Three different exposure metering modes:
  Average metering (light information from entire scene),
  Centre-weighted average metering and Spot metering
- Privacy Zone Masking (hiding/masking of protected areas)

- Flip function[1]
- Digital Image Shift[2]
- Motion detection[3] with selectable sensitivity
- Alarm notification[3] via DaVid protocol, e-mail and FTP image upload
- Local video memory: SDHC card slot integrated[3]
- Hybrid IP camera with analogue preview output
- Microphone input
- Voltage supply with 12 V DC or via PoE (Class 0, IEEE 802.3af)
- Low power consumption (max. 4.5 W)
- 3-axis adjustment
- Two available mounting variants:
  in-ceiling mount (IM) or surface mount (SM)
- Available with different lens types
- Compact vandal-resistant housing
- IP67 (surface mount variant)
- ONVIF compliant
- DIN EN 50130-4 compliant

| | Variants |
|---|---|
| 003206.403 | **DDF4910HDV-IM** <br> IP network dome camera, vandal-resistant, 5-megapixel, Full HD, 1080p/30, PoE, in-ceiling mount variant, F1.8 / 1.8 – 3 mm |
| 003207.403 | **DDF4910HDV-SM** <br> IP network dome camera, vandal-resistant, 5-megapixel, Full HD, 1080p/30, PoE, surface mount variant, F1.8 / 1.8 – 3 mm |
| 003206.404 | **DDF4910HDV-IM** <br> IP network dome camera, vandal-resistant, 5-megapixel, Full HD, 1080p/30, PoE, in-ceiling mount variant, F1.5 / 9 – 40 mm |
| 003207.404 | **DDF4910HDV-SM** <br> IP network dome camera, vandal-resistant, 5-megapixel, Full HD, 1080p/30, PoE, surface mount variant, F1.5 / 9 – 40 mm |
| 003206.405 | **DDF4910HDV-IM** <br> IP network dome camera, vandal-resistant, 5-megapixel, Full HD, 1080p/30, PoE, in-ceiling mount variant, F1.8 / 3.9 – 10 mm |
| 003207.405 | **DDF4910HDV-SM** <br> IP network dome camera, vandal-resistant, 5-megapixel, Full HD, 1080p/30, PoE, surface mount variant, F1.8 / 3.9 – 10 mm |

| | Options |
|---|---|
| 000428 | **Design Colours IM Cover Ring** <br> Cover ring for in-ceiling mount variant according to RAL or Pantone colour chart |
| 001044 | **Tinted Bubble** <br> For in-ceiling and surface mount variant, 4.5" |
| 001431 | **EvC-1** <br> High-Speed Ethernet data transmission via coaxial cable |
| 001678 | **Power Supply Unit (110 – 240 V AC -> 12 V DC)** <br> Universal power supply, 110 – 240 V AC to 12 V DC, 850 mA, plug adapter EU/UK/US/AUS |

1) Availability depending on set resolution and frame rate
2) Provides digital fine alignment of image section (only applicable at resolutions less than 5MP)
3) Function is in preparation.

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## Specifications

**Sensor**

| | |
|---|---|
| Type | 1/2.5" 5-megapixel CMOS image sensor with Cam_inPIX® technology |
| Signal processing | Pure Digital Signal Processing |
| Image capture | Progressive Scan |
| Minimum illumination | 0.59 lux (F0.95, 50 IRE) |
| Dynamic Range | Max. 70 dB[4] |

**Functions**

| | |
|---|---|
| Automatic Electronic Shutter (AES) | 1/30 – 1/2500 s (Auto Slow Shutter extends maximum exposure time to 1/5 s with AE Preset "Low light") |
| 3D Digital Noise Reduction (3D DNR) | On/Off |
| Automatic Exposure (AE) Presets | Outdoor, Indoor, Low light |
| Exposure metering mode | Average metering (light information from entire scene), Centre-weighted average metering, Spot metering |
| Brightness adjustment | Automatic (ALC)/Manual |
| Gain control | Automatic (AGC) |
| White balance | AWB (Automatic White Balance) |
| Privacy Zone Masking | Yes (max. 10% of entire image) |
| Flip function[5] | Horizontal, Vertical |
| Digital Image Shift[6] | Yes |
| Motion detection[7] (VMD) | With selectable sensitivity (5 levels) |
| Alarm notification[7] | Via DaVid protocol (Dallmeier Video Protocol) to PGuard advance, e-mail, FTP image upload |
| Configuration | Via web browser |
| Languages | English, German, French, Spanish, Italian |

**Lens**

| | |
|---|---|
| Mount | CS-mount |
| Auto iris control | Compatible with DC drive auto iris lenses |
| Type | *Specifications and available angles of view depending on variant (see "Lens Types" on page 3)* |

**Format and Encoding**

| | |
|---|---|
| Video standard | SDTV (PAL/NTSC), HDTV (SMPTE 296M, SMPTE 274M) |
| Resolution | SD (up to D1), HD (720p, 1080p, 2MP, 3MP, 5MP) |
| Video compression | H.264, MJPEG |
| Audio compression | G.711 |
| Frame rate | Up to 30 fps at D1 |
| | Up to 30 fps at 720p |
| | Up to 30 fps at 1080p |
| | Up to 30 fps at 2MP |
| | Up to 15 fps at 3MP |
| | Up to 10 fps at 5MP |
| Video bit rate | 0.25 – 8 Mbps, CBR (constant bit rate) or VBR (variable bit rate) |
| Audio bit rate | 64 kbps |
| Video streaming | Simultaneous Dual- or Tri-Streaming: H.264, MJPEG |
| Transfer format | Progressive (full image) |
| Live streaming transmission method | Unicast, Multicast |

**Miscellaneous**

| | |
|---|---|
| Video output | 1× BNC (CVBS, analogue SD video preview output, for local installation only) |
| Audio OUT (Mono) / Microphone IN (Mono) | 1× 3.5 mm phone jack (for stereo plug) |
| | Mic IN: max. 63 mV (RMS), input resistance 10 kOhm, internal gain 20 dB |
| Local video memory | SDHC card slot integrated[7] |
| Ethernet | 1× RJ45, 10BASE-T-/100BASE-TX-PoE |
| Ethernet protocols | IPv4, TCP, UDP, ARP, ICMP, DHCP, NTP, HTTP, RTSP, IGMP V2, FTP[7], SMTP[7], RTP, RTCP |

**Electrical Data**

| | |
|---|---|
| Voltage supply | 12 V DC ±10%, PoE (Class 0) |
| PoE standard | IEEE 802.3af |
| Power consumption | Max. 4.5 W |

**Mechanical Data**

| | |
|---|---|
| Dimensions | In-ceiling mount variant: approx. Ø 170 × H 135 mm (Ø 6.7 × H 5.3 inches) |
| | Surface mount variant: approx. Ø 153 × H 135 mm (Ø 6.0 × H 5.3 inches) |
| Weight | In-ceiling mount variant: approx. 1200 g (2.6 lb) |
| | Surface mount variant: approx. 1100 g (2.4 lb) |
| Adjustment | 3-axis |
| Colour | White (standard variant) |
| Bubble | Clear (with black inner liner for discrete surveillance) |

**Environmental Conditions**

| | |
|---|---|
| Operating temperature | In-ceiling mount variant (indoor): 0°C to +35°C (32°F to 95°F) |
| | Surface mount variant (in- and outdoor): −10°C to +40°C (14°F to 104°F) |
| Relative humidity | 0% – 90% RH, non-condensing |
| IP rating | IP67 (surface mount variant) |

**Approvals/Certifications**

| | |
|---|---|
| Type | CE, UVV-Kassen, DIN EN 50130-4 compliant |

4) According to the sensor manufacturer's specifications
5) Availability depending on set resolution and frame rate
6) Provides digital fine alignment of image section (only applicable at resolutions less than 5MP)
7) Function is in preparation.

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## Lens Types

### Lens F1.8 / 3.9 – 10 mm

| | |
|---|---|
| Type | 3-Megapixel varifocal lens |
| Format | 1/2" |
| Mount | CS-mount |
| Focal length | 3.9 – 10 mm |
| Iris range | F1.8 – 360 |
| Iris control | DC auto iris |
| Zoom | Manual |
| Focus | Manual |
| MOD (Minimum Object Distance) | 0.3 m |
| IR corrected | Yes |
| Available angles of view[8] (H × V) at wide end | approx. 62° × 44° at D1 NTSC<br>approx. 62° × 52° at D1 PAL<br>approx. 71° × 44° at 720p<br>approx. 56° × 33° at 1080p<br>approx. 48° × 37° at 2MP<br>approx. 60° × 46° at 3MP<br>approx. 72° × 57° at 5MP |
| Available angles of view[8] (H × V) at tele end | approx. 26° × 18° at D1 NTSC<br>approx. 26° × 21° at D1 PAL<br>approx. 31° × 18° at 720p<br>approx. 23° × 13° at 1080p<br>approx. 20° × 15° at 2MP<br>approx. 25° × 19° at 3MP<br>approx. 31° × 24° at 5MP |

### Ultra Wide-Angle Lens F1.8 / 1.8 – 3 mm

| | |
|---|---|
| Type | 5-Megapixel varifocal lens |
| Format | 1/2.5" |
| Mount | CS-mount |
| Focal length | 1.8 – 3 mm |
| Iris range | F1.8 – Closed |
| Iris control | DC auto iris |
| Zoom | Manual |
| Focus | Manual |
| MOD (Minimum Object Distance) | 0.5 m |
| IR corrected | Yes |
| Available angles of view[8] (H × V) at wide end | approx. 105° × 82° at D1 NTSC<br>approx. 105° × 93° at D1 PAL<br>approx. 114° × 82° at 720p<br>approx. 99° × 66° at 1080p<br>approx. 88° × 72° at 2MP<br>approx. 102° × 86° at 3MP<br>approx. 115° × 99° at 5MP |
| Available angles of view[8] (H × V) at tele end | approx. 76° × 55° at D1 NTSC<br>approx. 76° × 64° at D1 PAL<br>approx. 86° × 55° at 720p<br>approx. 70° × 43° at 1080p<br>approx. 60° × 47° at 2MP<br>approx. 73° × 58° at 3MP<br>approx. 87° × 71° at 5MP |

### Telephoto Lens F1.5 / 9 – 40 mm

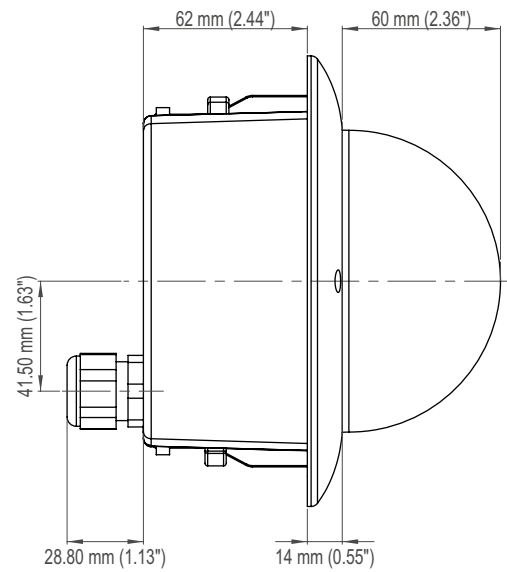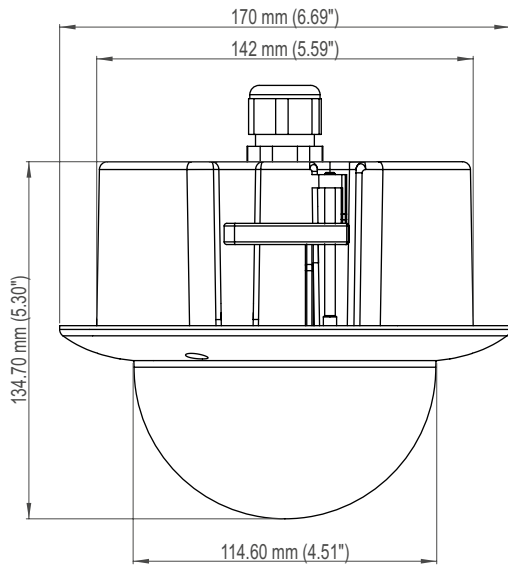| | |
|---|---|
| Type | 5-Megapixel varifocal lens |
| Format | 1/2.5" |
| Mount | CS-mount |
| Focal length | 9 – 40 mm |
| Iris range | F1.5 – Closed |
| Iris control | DC auto iris |
| Zoom | Manual |
| Focus | Manual |
| MOD (Minimum Object Distance) | 2.0 m |
| IR corrected | Yes |
| Available angles of view[8] (H × V) at wide end | approx. 29° × 20° at D1 NTSC<br>approx. 29° × 23° at D1 PAL<br>approx. 34° × 20° at 720p<br>approx. 26° × 15° at 1080p<br>approx. 22° × 16° at 2MP<br>approx. 28° × 21° at 3MP<br>approx. 35° × 26° at 5MP |
| Available angles of view[8] (H × V) at tele end | approx. 6° × 4° at D1 NTSC<br>approx. 6° × 5° at D1 PAL<br>approx. 8° × 4° at 720p<br>approx. 6° × 3° at 1080p<br>approx. 5° × 3° at 2MP<br>approx. 6° × 4° at 3MP<br>approx. 8° × 6° at 5MP |

8)   All specifications ±5%. Minor deviations with lenses can be conditional of manufacturing and do not constitute a defect.
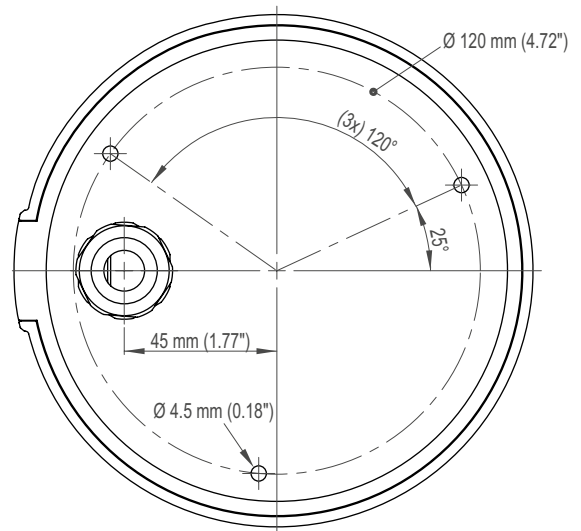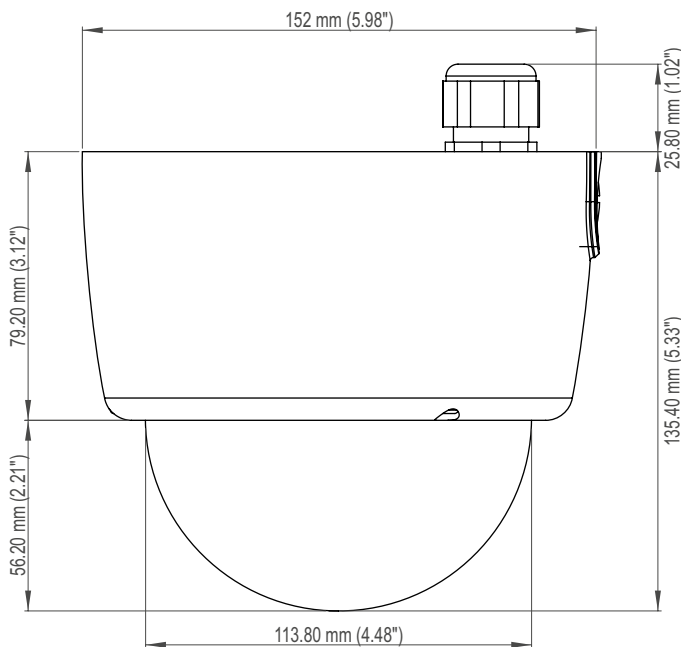
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## Dimensions



170 mm (6.69")
142 mm (5.59")
134.70 mm (5.30")
114.60 mm (4.51")

62 mm (2.44")
60 mm (2.36")
41.50 mm (1.63")
28.80 mm (1.13")
14 mm (0.55")

In-ceiling mount variant



152 mm (5.98")
25.80 mm (1.02")
79.20 mm (3.12")
135.40 mm (5.33")
56.20 mm (2.21")
113.80 mm (4.48")

Ø 120 mm (4.72")
(3x) 120°
25°
45 mm (1.77")
Ø 4.5 mm (0.18")

Surface mount variant

V1.0.0   2011-09-14   Specifications subject to change without notice. Errors and misprints excepted.   © 2011 Dallmeier electronic